The Chilean Pension System as a Model for Pension Reform

Work Shop

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BOND MARKET DEVELOPMENT:

THE CHILEAN EXPERIENCE

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JULY, 2002

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I. Chile: Basic Facts

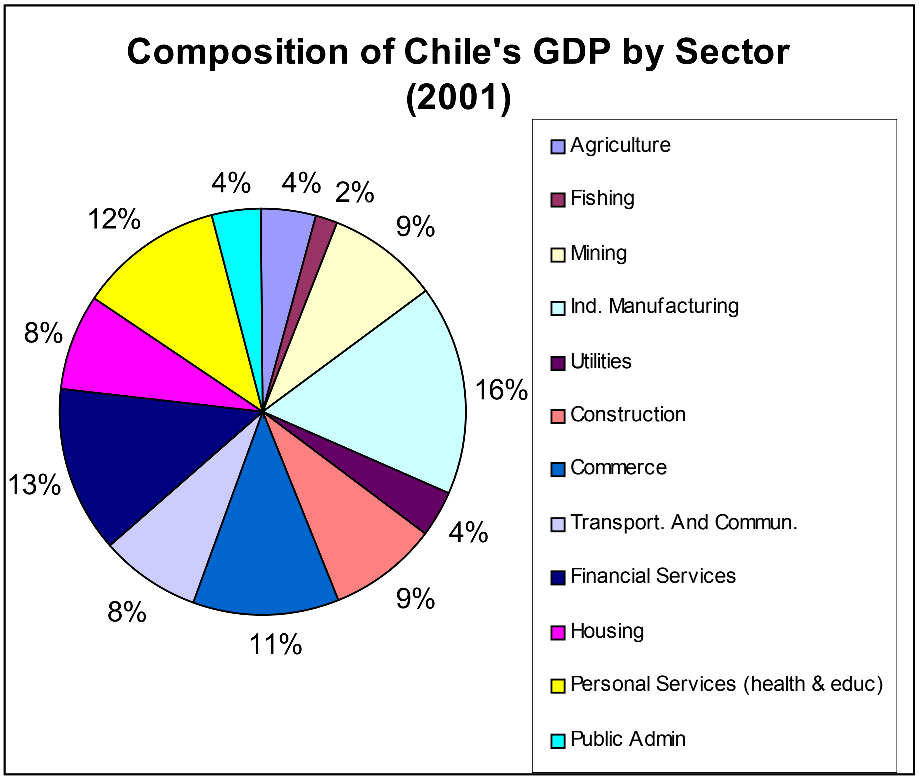
As can be seen in the map included below, the Republic of Chile is located in the so-called Southern Cone of the South American continent, and according to the preliminary results of the recently concluded 2002 Census, has a population of 15,050,000.

Chile can be characterized as a very open, market-oriented economy, where private enterprises account for the majority of economic activity. In trade terms, Chile's openness is illustrated by the fact that the sum of its imports and exports for the year 2001 represented more than 50% of annual GDP. From a financial perspective, the country's openness is reflected in a capital account free from any type of restriction on capital inflows and outflows, and in a free-float currency (the Chilean peso is not subject to bands or other type of currency fixation mechanisms). Below are presented certain key macroeconomic indicators, in order to appreciate the economic condition of the country as of year end 2001.

- GDP: US $63 billion
- Per Capita GDP: US $4,200
- Inflation: 3.1%
- Unemployment: 8.7% (yearly average)
- Current Account Deficit as % of GDP: -1.4%

•Total Exports: US $17.4 billion
•Total Imports: US $15.9 billion
•Government Surplus as % of GDP: Approximately 1.0%

With respect to the composition of the country's economy, the pie chart illustrates that the two most important sectors are industrial manufacturing (explaining 16% of total GDP) and financial services (13%). These sectors are followed in importance by personal services, which includes the health and education industries and accounts for 12%, and commerce (11%).



II. The Importance of the Capital Market

A solid and developed capital market provides the principal foundation for the long-term growth of economies. International experience has shown that capital markets develop better when the following conditions are met:

- Adequate mechanisms for protecting savings exist.
- An effective and efficient judicial system is in place.
- An adequate amount of good-quality information is made public.

- International accounting standards are observed.

- The country enjoys a stable political system.

In this sense, Chile currently meets the majority of these requisites and, where deficiencies still exist, we observe a clear disposition by the Authorities to correct inadequacies in the short-term. However, this hasn't always been the case, and historically speaking, the country has experienced its own share of difficulties.

III. The Evolution of the Capital Market: The Last Twenty Years

In the early 1980's, Chile experienced a severe financial crisis, which led to a significant devaluation and the near disintegration of the existing structure of the capital market. Following the crisis, and learning from past deficiencies, Chile set up a rigorous regulatory framework with non-ambiguous banking, securities and antitrust laws.

These measures created an environment in which almost all of the actors in the country's capital market witnessed constant change, posted rapid growth and confronted increasing competition. For example, the banking system modernized and made significant efficiency gains, with sweeping reform in the capital market paving the way for the rise of new institutions and actors.

In hindsight, and considering all of the capital market regulatory reforms implemented after the crisis of the early 1980's, the most important ingredient for the development of the Chilean capital market turned out to be the private pension fund system (created by D.L. 3.500 in 1981). This law, the first of its kind in the world, established obligatory privately funded, individually capitalized pension funds for Chilean workers to replace the unprofitable pay-as-you-go social security system. This model was eventually copied and adopted in a number of countries around the globe, especially within the Latin American region. *The Appendix provides additional information on the system and its development.*

Given the successful development that the capital market showed in the years following the crisis of the early 1980's, today the Chilean financial services industry consists of a wide range of intermediaries, investors, corporations and related companies that offer most of the products and services available in major world financial centers.

Furthermore, this development of the capital market explains why the latest reforms implemented in Chile are inclined toward a progressive deregulation and a greater emphasis on self-regulation by capital market actors, under the watchful eye of regulatory authorities. The following are the regulatory Agencies responsible for assuring the observance of the different laws and for issuing specific regulations:

- The Securities and Insurance Superintendency (*Superintendencia de Valores y Seguros*).

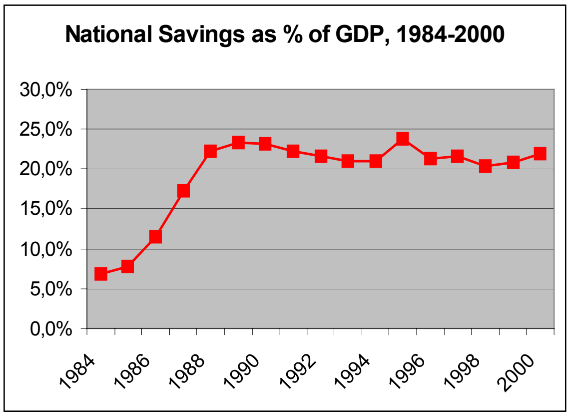
- The Banks and Financial Institutions Superintendency (*Superintendencia de Bancos e Instituciones Financieras*).

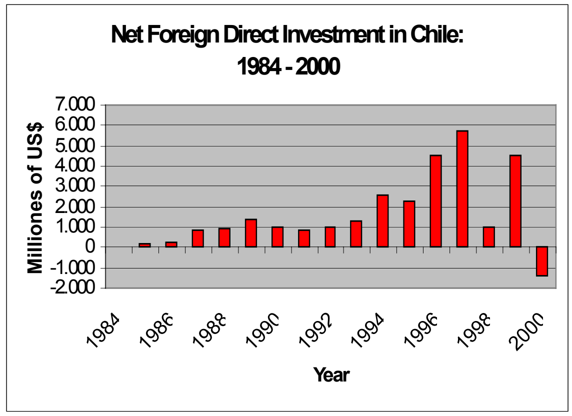
- Pension Fund Administration Companies Superintendency (*Superintendencia de Administradoras de Fondos de Pensiones*).

- Health Care Institution Superintendency (*Superintendencia de ISAPRES*).

- The Central Bank (more details in point IV.2)

The country's capital markets have grown dramatically over the last twenty years, fueled by both domestic savings and foreign investment, as can be observed in the following charts:





It can be seen that the level of national savings registered during the 1990's and up to the present has been significantly superior to the savings rates of the early 1980's.

Furthermore, until the year 1997 net foreign investment inflows grew sharply, from a yearly average of roughly US $1 billion to nearly US $6 billion. However, this level has not been recuperated in the wake of the 1997-8 Asian Crisis that eventually produced shockwaves in nearly all emerging markets.

IV. The Chilean Bond Market

1. Supply – The Current Situation

The total amount of issued bonds in Chile, as of year-end 2001, was approximately US $40 billion, equivalent to roughly 60% of the country's annual GDP. Around 60% of this amount is comprised by instruments issued by the public sector (the Central Bank, the government and state-owned companies), with the remaining 40% explained by private-sector institutions, principally banks.

The issued bonds include a large variety of instruments with different characteristics with respect to duration, terms of payment, amortization schedules, denomination, indexation, and interest rates.

In the case of the public sector, more than ten types of debt instruments are held in investment portfolios. The two main objectives of issuances have been to obtain funding for the government and regulate the money supply. Nevertheless, given the structural surpluses generated by the government over the last decade, the objective of generating funds has lost importance.

Among instruments issued by the public sector, the Central Bank's so-called Readjustable Bonds (PRBC) have prominence in the market. These are short-term instruments by means of which the Central Bank plays it regulatory role over the country's monetary policy. The Central Readjustable Bonds (PRC) are also relevant instruments in the public sector's offer of debt. PRC are long-term bonds (over a year), with amortizations every semester, by means of which the Central Bank obtains funding from the capital market.

At present, and considering that the Central Bank has no pressing need to raise funds, the issue of the long-term PRCs is basically oriented toward providing the main signal for defining the country's long-term interest rate. This means that they are the "risk free" reference for the determination of different spreads applied in the market.

In the case of the Central Bank bonds, issuances in the market are carried out through auctions in which banks, financial institutions, insurance companies, pension funds and mutual funds are authorized to participate. The Central Bank informs the market in advance of the bond issue calendar.

Typically, Central Banks have two forms of issuing bonds: one is by determining the amount to be issued, therefore letting the market define the interest rate; while the other is when the monetary authorities fix the interest rate, and market demand determines the amount finally sold. In Chile, the Central Bank determines the amount of bonds to be sold in each auction, and therefore the market defines the interest rate. However, it should be noted that it is the "marginal investor" who does so. Investors make bids for any amount that they wish, and the Central Bank begins by accepting the lowest interest rate. If the lowest bidder does not make a bid for the entire batch of bonds issued, the Bank accepts the second lowest interest rate, and so on, until the sum of the bids is equal to the total amount offered by the Bank. The interest rate offered by the bidder that "closes out" the auction is applied for all bidding investors, and it is in this sense that it is the "marginal investor" who ultimately determines the interest rate of the entire issue. This system is known as the "Dutch-style system," and it should be noted that in Chile it applies for both short and long term bond issues.

In the event that the Treasury had to issue bonds in order to obtain financing for the government, the same system would be applied.

Between 1997 and 2001, the average annual amount of bonds auctioned off by the Central Bank was US $15 billion. This amount includes the auction of short and long term instruments, as well as instruments in US dollars (PRD), for the local market.

Since the PRBC and PRC explain the overwhelming majority of instruments issued by the public sector, it can be said that the Central Bank is the principal issuer of public sector bonds in the market. This notwithstanding, bonds could also be issued directly by the central government or State-owned companies. However, the issued amounts and the liquidity of such instruments have tended to be low in relation to the Central Bank's bonds.

2. Supply – The Central Bank

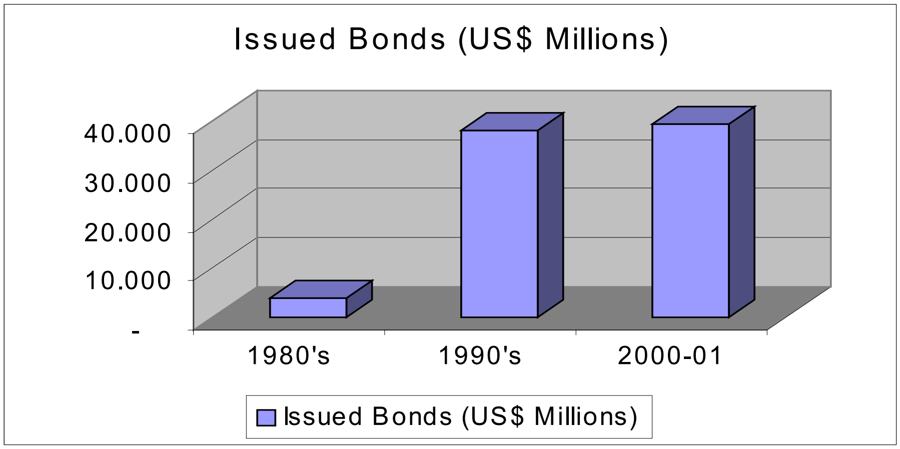
The Central Bank was granted autonomous status by the Chilean Constitution of 1980, and its regulatory framework allows it to lend to banks and financial institutions. The Bank is expressly prohibited from granting guarantees to, or acquiring documents issued by, the government. It is also expressly prohibited from financing any kind of public expenditure, except "in the case of external war or danger thereof."

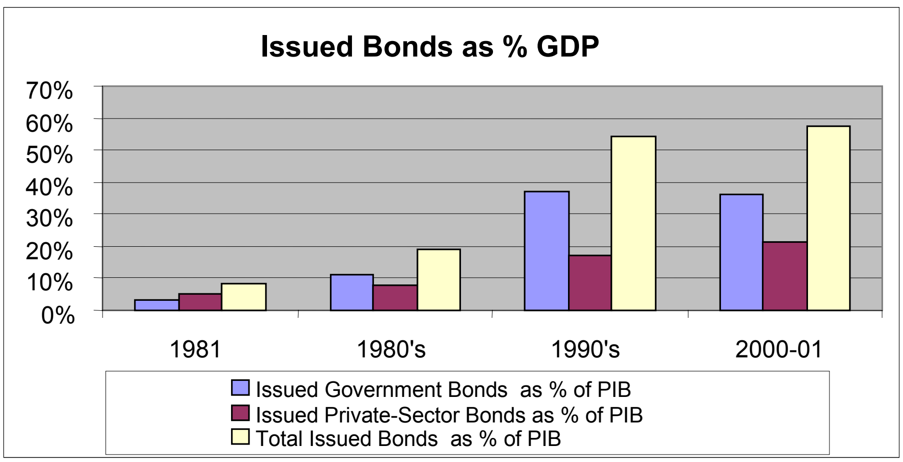
The main functions of the Central Bank are as follows:

- Exclusive power to issue notes and mint coins.
- Regulation of money and credit in circulation; regulation of the financial system and capital markets, in the areas of foreign exchange operations.
- Responsibility for safeguarding the stability of the financial system.
- Role as fiscal agent for the government.
- Responsibility for formulating and implementing exchange rate policy.
- Compiler of main national macroeconomic statistics, including national accounts, balance of payments data and external debt statistics.

3. Supply – History and Evolution

The significant development of the Chilean bond market over the last two decades can be seen clearly in the following graph, with the average stock of issued bonds rising from US $4 billion during the 1980s to nearly US $40 billion at year end 2001. Consequently, the amount of issued bonds as a percentage of GDP climbed from below 10% in 1981 to nearly 60% during the 2000 – 2001 period.

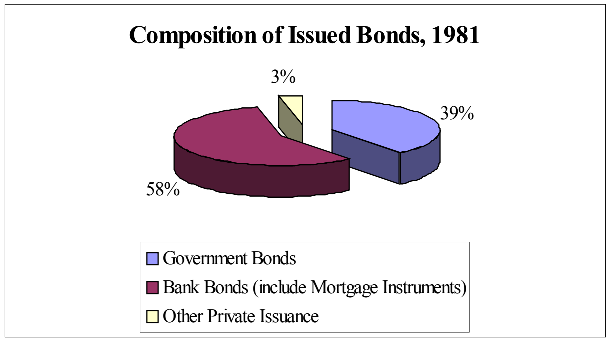


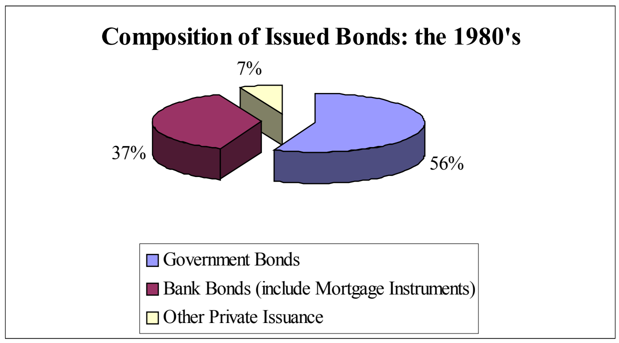


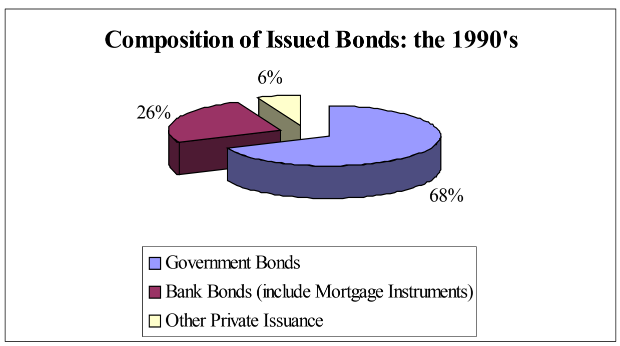
As shall be seen in the series of graphs included further below, the majority of the offer of bonds in Chile is currently provided by the public sector (64%). However, it can be seen that in the early 1980's, the private sector accounted for the largest share (58% in 1981).

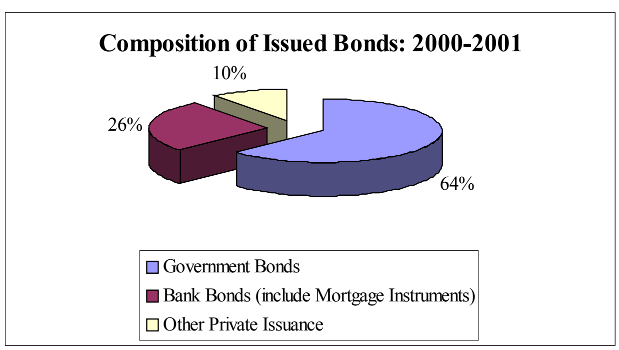
The rise of institutional investors regulated by D.L. 3.500 (the pension funds and insurance companies), whose investments are subject to strict limits on the composition of their portfolios, generated strong demand for long-term, low-risk instruments. This demand was largely met, especially during the late 1980's and the 1990's, by the public sector.

This explains the rise in the importance of public sector bonds in the local capital market. Therefore, the change in the relative importance of bond suppliers in Chile over the last twenty years, illustrated by the following graphs, has more to do with growing demand from institutional investors, than with an increase in the government's financing needs since, as has been mentioned, over the last decade the government has posted a structural surplus.


Composition of Issued Bonds, 1981
3%
39%
58%
Government Bonds
Bank Bonds (include Mortgage Instruments)
Other Private Issuance


Composition of Issued Bonds: the 1980's
7%
37%
56%
Government Bonds
Bank Bonds (include Mortgage Instruments)
Other Private Issuance


Composition of Issued Bonds: the 1990's
6%
26%
68%
Government Bonds
Bank Bonds (include Mortgage Instruments)
Other Private Issuance


Composition of Issued Bonds: 2000-2001
10%
26%
64%
Government Bonds
Bank Bonds (include Mortgage Instruments)
Other Private Issuance

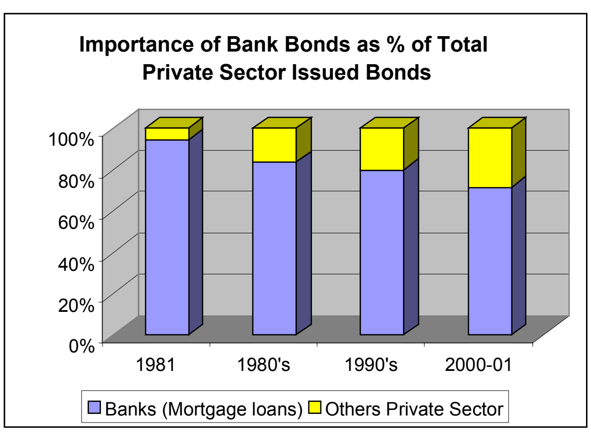
With respect to private-sector bond issuers, the banks are the market's principal suppliers, mainly due to the development of the mortgage loan market. Because of their characteristics (long-term and highly liquid), mortgage instruments are also highly prized investments for institutional investors.

It should be noted that the above-mentioned analysis includes the figures for the State-owned Banco Estado. While in terms of its relative importance within the banking sector Banco Estado is not a dominant actor, since it accounted for only 9.4% of total bank assets as of February 2002, its participation in the home mortgage market is significant, with the bank concentrating close to 30% of all mortgage loans.

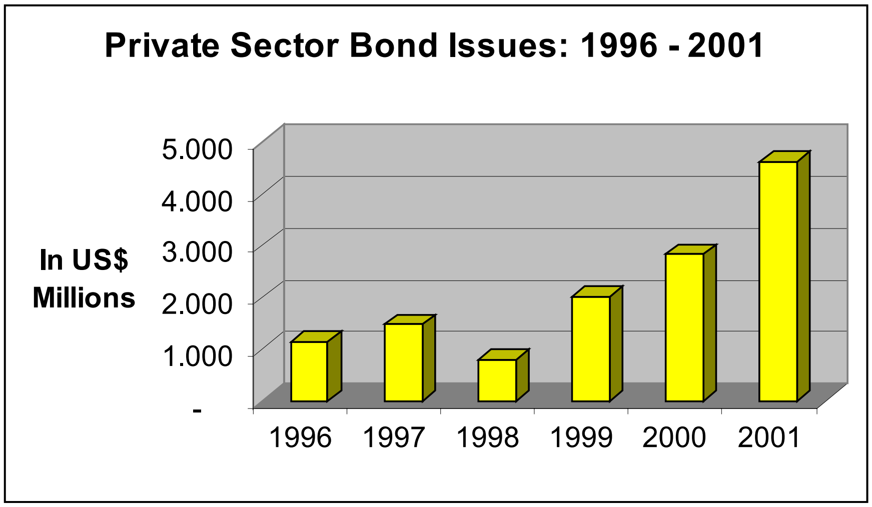
The importance of non-mortgage loan bonds issued by the banks, and bonds issued by private enterprises (debentures) has been limited. This is explained mainly by the fact that in order to issue instruments that can be incorporated in the portfolios of the institutional investors, issuers must meet with a series of requisites established by the law that make this form of financing relatively expensive, compared with other available alternatives in the local and external capital markets. This is especially true when the amount to be raised is not very significant, which tends to be the situation facing the majority of Chilean firms, given their size.

In order to issue bonds, companies in Chile must be registered with the Securities and Insurance Superintendency and provide audited financial information to the market on a quarterly basis. In addition, those companies that wish to issue bonds that are suitable for inclusion in the portfolio of the pension funds and insurance companies must submit to the rating risk classification of two authorized ratings agencies.

Nevertheless, since 1981 we witness a positive evolution of the relative importance of this type of instrument. This development is explained by a gradually increasing degree of flexibility for the limits on the composition of pension fund investment portfolios, which especially since the early 1990's have progressively permitted the inclusion of greater-risk instruments.



Also, as can be seen in the following graph, over the last few years the Chilean market has witnessed an increase in the absolute amount of issued private sector bonds:



The explosive growth of emissions during 2001 (+63% versus the previous year) can be attributed basically to low interest rates. However, a substitution effect is also at play, with bonds gaining attractiveness due to a depressed stock market (both with respect to volumes and performance) and the rising cost of bank loan commissions.

4. Demand – The Current Situation

The principal holders of bonds in Chile are the institutional investors, which include banks and financial institutions, insurance companies and pension funds. As of late 2001, these investors held more than 90% of total bonds issued to date, and more than 95% in the case of public-sector debt.

The Chilean bond market is characterized by its high degree of liquidity, especially with respect to public-sector instruments which, as we have seen, are subject to strong demand by the institutional investors. An illustration of the liquidity of the local market is provided by the fact that every year, 5 times the total amount of issued bonds is traded in the market (both within and outside of the stock exchange). It should be noted, however, that the liquidity of the market is greater for short-term instruments.

The size of the secondary market for fixed-income instruments during 2001 was US $184 billion, with 66% explained by transactions for short-term instruments, and long-term instruments accounting for the remaining 34%.

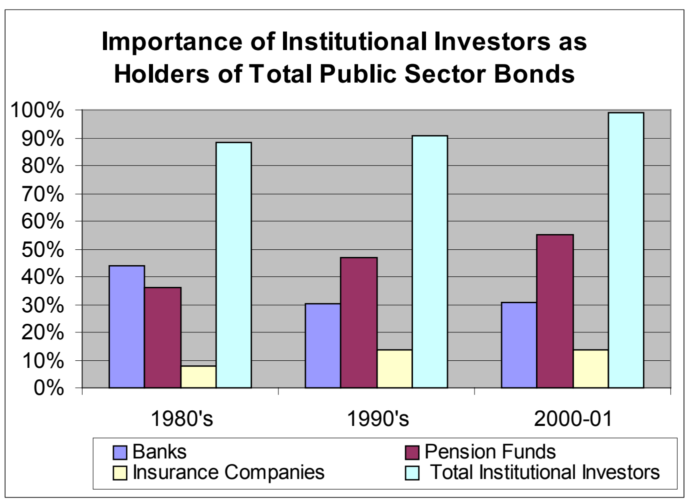
The liquidity of the market is important for the stability of the portfolios of investors and for the flexibility that it provides for changing portfolio composition. As a result, it is a keystone for the development of the capital market.

The depth of the Chilean bond market can be explained principally by the active participation of the institutional investors. However, another favorable factor has been the existence of the Central Clearance and Settlements House *(Depósito Centralizado de Valores,* or DCV in its Spanish language acronym*)*, which assures the transparency, rapidness and security of transactions. In the long term, the existence of this type of institution could even support the complete "de-materialization" of the capital market, with subsequent cost reductions for both issuers and investors. The concept of "de-materialization" in the capital market refers to the disappearance of physical instruments, with 100% of transactions undertaken by electronic means, with virtual instrument "custody" and transfer centralized in an entity such as the DCV.

5. Demand – History and Evolution

On the demand side, notable changes have occurred in the relative importance of the different types of institutional investors, with respect to the amount of their holdings.

As can be seen in the following graph, while in overall terms these investors have maintained their importance as holders of practically the entire issue of public-sector bonds, the importance of the banks has decreased. At the same time, the insurance companies and pension funds have gained relevance (especially the latter, which as of year-end 2001 held 55% of these instruments).

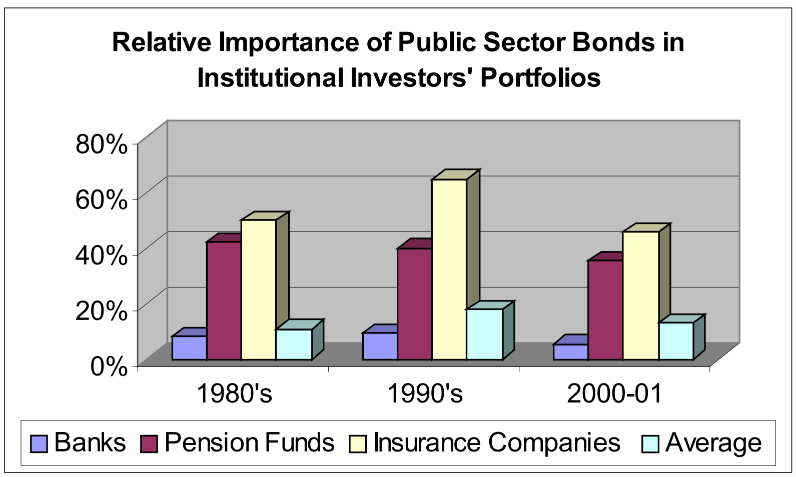


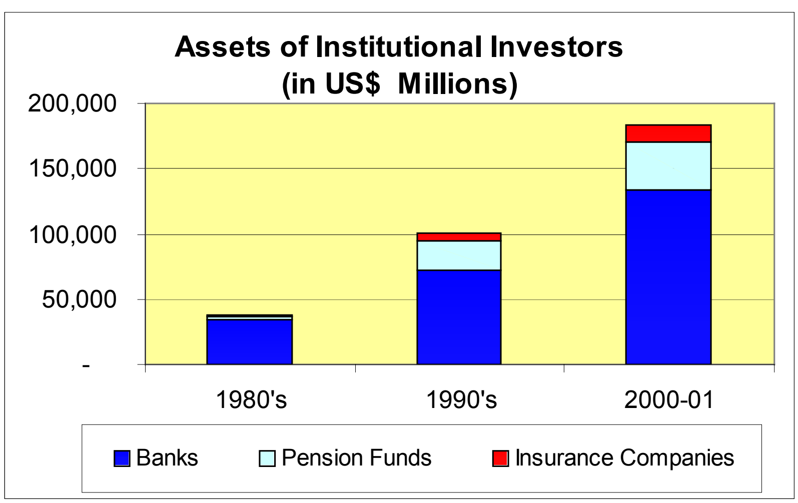
Notwithstanding the evident importance that institutional investors have in the demand for public-sector bonds, we observe that the relative weight of these instruments within their portfolios has progressively decreased over time, as a consequence of the following factors:

- The emergence of a wider range of investment alternatives due to the development, strengthening, and sophistication of the local capital market, and the creation of adequate risk measurement and control mechanisms. It should be pointed out that this wider range of alternatives has translated into an expansion of investment limits per instrument and issuers, and regulatory approval of other non-traditional instruments (such as derivatives, foreign instruments and shares of investment funds).

It should also be mentioned that, originally, the pension funds and insurance companies concentrated practically their entire portfolios in long-term investments in public sector bonds, since the regulatory framework left them with virtually no alternatives.

- The significant growth of funds managed by these investors, which over the last ten years has been 400% in the case of the pension funds, and 500% for the life insurance companies. Said growth has come as a result of both the massification of the Private Pension System as well as the attractive profitability obtained by these institutions, especially during the early 1990's as a result of their investments in the stock market.





V. The Evolution of the Chilean Bond Market: Reasons for Development

In summary, based upon the analysis presented above, it is relatively clear that the strong development of the bond market in Chile owes more to the existence of strong demand for these types of instruments than to pressure on the supply side. In fact, the development of supply has come in response to growth in demand.

From this perspective, for understanding the success of the bond market in Chile, it is important to analyze the conditions that allowed the development of this demand.

Doubtlessly, the principal determining factor has been the existence of large-scale private investors, such as pension funds and insurance companies, based upon an obligatory retirement system that assures that the managed funds grow with the country's development.

Also important has been the establishment of a regulatory framework that protects the affiliates of these institutions and gives confidence in the System, but also has evolved over time as the industry has matured, toward greater degrees of flexibility. This framework has granted stability to the market, since it has generated the necessary confidence for development, on the part of both affiliates and investors.

The duration of the obligations of these investors provides permanent incentives for them to seek out assets that allow them to properly match it. This has permitted the significant development observed in the market for long-term bonds, with the subsequent benefits for the stability of the economy. This is due to the fact that the issue of long-term bonds must be sustained by the existence of projects with a consistent duration that justify the demand for the funds.

However, while the existence of the above-mentioned factors has been a prerequisite for the development of the bond market in Chile, by themselves they would not have been sufficient to ensure that the objective of creating the conditions for its development were met.

In effect, the constitution of long term portfolios means that investors must face other significant risks. If appropriate measures are not taken to control these risks, markets will still fail to develop. Among these, the most important are the risk associated with inflation, political and regulatory changes, issuer solvency and a lack of market depth, which limits the flexibility of investment strategy over time.

In order to neutralize these risks, the mechanisms utilized in Chile have included the following:

- Establishment of Central Bank autonomy, which assures the independence of macroeconomic policies from political changes.

- Observance of fiscal balance, both on the internal and external fronts, that assures the solvency of the Central Bank as an issuer of long-term instruments and the economy's stability.

- Development of mechanisms that insure the existence of deep, liquid markets for long-term instruments, such as a regulatory framework that provides confidence to those who save, and a solid, transparent and efficient clearance and settlements system (DCV).

- Creation of an indexation system for the economy, based upon the existence of the *Unidad de Fomento (UF)*, which in essence is a way of adjusting the value of any asset or liability for inflation, so that it maintains its value over time, in real terms.

  The UF was created in 1967, and at that time it was assigned an arbitrary value of $100 pesos (which is to say that this value was chosen for the sake of convenience, and not because it in itself represented anything). From that time onward, the value of the UF unit was adjusted on a periodic basis (today it is adjusted daily), according to variations in the Consumer Price Index (CPI) of the previous month. At present, the majority of Chilean debt instruments, and all long-term instruments, are expressed in UF terms, which assures that investors are completely protected from the effects of inflation.

  Notwithstanding the importance of the existence of an indexation system per se, Eduardo Walker H., in his article, *The Chilean Experience in completing markets with financial indexation* (1997), maintained that for the development of the bond market in Chile, at least four conditions were present that contributed to the success of the system in practice:

  - ✓ The unit has credibility, in that it will not be manipulated by the authorities and is based on the Chilean Consumer Price Index, which is computed by an independent entity, the National Institute of Statistics (INE).

  - ✓ The laws accept the UF as a valid alternative currency unit. For example, most loans and time deposits must, by law, be indexed; and in the case of life insurance companies, assets and liabilities are measured by the regulatory agencies in UF for the purpose of calculating the degree of compliance with the pertinent legal rules.

  - ✓ There is a deep, liquid market for indexed Central Bank bonds. This provides a risk-free real interest rate for a series of different maturity horizons, which serves as a reference for private transactions. Trading indexed government bonds is important, since it reduces the uncertainty surrounding the expected costs and benefits of buying or selling indexed securities. The costs of creating a new market and informing investors may be large enough to inhibit the spontaneous creation of indexed securities by private investors.

- ✓ Chile’s tax regulations are consistent with a generalized indexation of the economy. If unexpected inflation is neutral in terms of tax consequences, as is the case in Chile, it is likely that more issuers and investors will be interested in such instruments.

Appendix

Brief Description of the Chilean Pension Fund System

Origin of the Private Pension Fund System and its Basic Characteristics

D.L. 3.500 from 1981 established obligatory privately funded, individually capitalized pension funds for Chilean workers to replace the unprofitable pay-as-you-go social security system. This system, the first of its kind in the world, was implemented when the demographic and economic projections for the country suggested that the existing system could collapse in the future under the weight of its obligations.

The system is based upon individual pension fund accounts, which are financed by each worker's own earnings. The system is obligatory for dependent workers (those who work as contracted employees), but optional for independent workers, and it operates in the following fashion:

- Every month, 10% of the employee's gross salary (up to a predetermined maximum gross salary, fixed in UF terms) is deducted by the employer and transferred to the pension fund chosen by the worker. This amount represents savings for future pension payments.

- Furthermore, the employer also transfers to the pension fund administrator a certain percentage (depending upon the commissions determined by each administrator) from the gross salary of the employee. These funds are used for financing the operations of the administrator as well as an insurance policy, set up for the employee, that provides benefits in the event of disability and premature death.

  While this additional deduction is generally considered to be relatively high (at present it runs between 2.0% and 2.5% of the employee's gross salary), since the creation of the system it has consistently fallen as competition has increased.

The following example illustrates the workings of the system:

Operation of the Chilean Private Pension Fund System	Values in UF
Gross Salary	50.0
Monthly Pension Fund Deduction	5.0
10% of gross salary	
Administrator's commission + disability insurance	1.1
Supposes commission of 2.25% of gross salary	
Net Salary before Health Insurance Deduction	43.9

The Two Pension Fund Systems

In Chile, two pension fund systems exist in parallel: the public system, a left-over from the old pay-as-you-go system, and the private pension fund system described above.

The affiliates of the public system, based upon the *Instituto de Normalización Previsional* (INP), are those workers who contributed to the pay-as-you-go system before 1981 and chose not to switch to a private pension fund administration company when the new system was created. The INP also administers certain other social security benefits unrelated to pensions. This entity has very large liabilities and cash expenditures since most of its affiliates are retired.

With respect to the private pension fund system, all dependent workers who entered the labor force following the creation of the system have been legally obligated to open a pension fund account with one of the Administrators (known in Chile as AFPs). Those individuals who contributed to the old system, but chose to affiliate with the new system, received in their account zero-coupon bonds (which in Chile are called *Bonos de Reconocimiento)* issued on their behalf by the government, based upon their particular circumstances. These bonds "recognize" the contribution that the worker made to the old system.

Characteristics of the AFP and of the Pension Funds

The AFPs are corporations owned by private sector actors. These companies are strictly regulated by the Pension Fund Administration Companies Superintendency, and they are permitted only to administer pension funds. As of 31 December 2001, there were eight AFPs and the number of total affiliates, including pensioners and individuals who have contributed to the system at least once, stood at 6.4 million (43% of the Chilean population), with active contributors at 3.4 million (23% of the population).

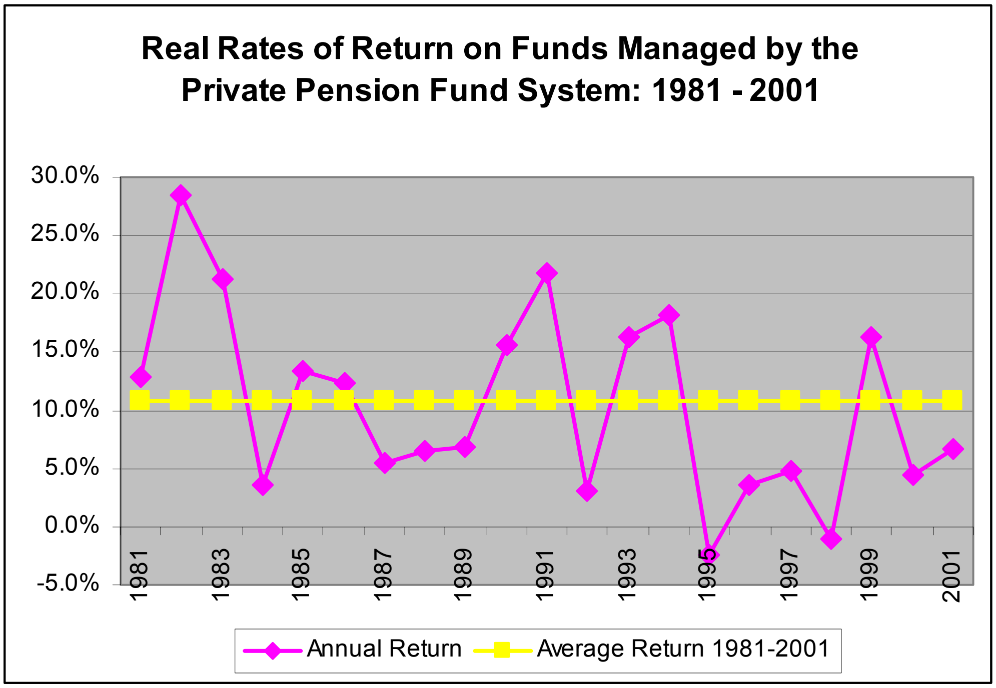
The most important elements of the regulatory structure applied to the AFPs are based upon limits on investments by type of instrument and by issuer; minimum relative profitability for the pension funds (measured against the average return registered by all of the AFPs); minimum capital levels for the administrator; and the provision of information to affiliates.

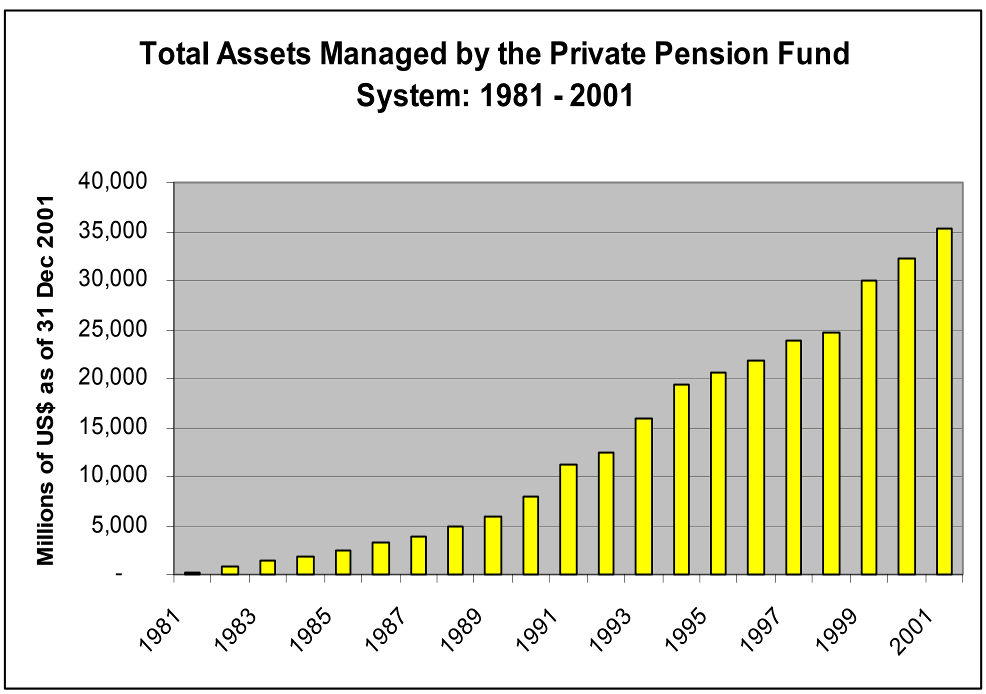
The AFP are legally separated from the pension funds that they administer, which means that in an extreme case, an administrator could go bankrupt, but the individual funds of each affiliate would remain unaffected, since they belong to the worker and not to the AFP. The affiliate would only have to transfer his or her funds to another administrator.

Workers have the freedom to switch between AFPs, taking with them the entire amount of their accumulated funds. This freedom of choice was “abused” during the early and mid 1990s when increased competition motivated the administrators’ sales force to offer rewards (usually items such as bicycles, but in some extreme cases, money) to those who switched from one company to another. As a result, the system displayed a significant affiliate “rotation rate,” which had the effect of increasing the administrative costs of the system and, by default, the commissions of the AFP. At its peak, during the year 1997 the AFPs registered a total of 1.6 million affiliate transfers and employed 18,000 sales people. In response to this situation, in the late 1990’s the Authorities created a series of “administrative procedures” that must be fulfilled when an affiliate wishes to switch between AFPs. In addition, the administrators “rationalized” their sales forces, greatly reducing the number of sales people. These measures translated into a sharp decline in the “rotation rate” of affiliates, so that the current rate can be considered reasonable, as well as a sizeable drop in commission rates. During 2001, only 200,000 affiliate transfers took place between AFPs, and as of December of that year the system employed slightly more than 2,000 sales people.

Another characteristic of the system that should be mentioned is that by law, provided that the affiliate meets with certain prerequisites, all pensioners are entitled to a monthly payment equal to a “minimum pension” guaranteed by the government.

During their existence, the funds managed by the AFPs have displayed attractive rates of return, with average annual real rates of return of 10.7%. However, in recent years the profitability of the funds has been lower, principally due to the relatively poor showing of the local stock market. The total amount of funds managed has increased significantly since the creation of the system, from US $236 million in 1981 to US $35.4 billion as of December 2001.


Real Rates of Return on Funds Managed by the Private Pension Fund System: 1981 - 2001
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
-5.0%
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
Annual Return
Average Return 1981-2001


Total Assets Managed by the Private Pension Fund System: 1981 - 2001
Millions of US$ as of 31 Dec 2001
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
-
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001

Lastly, and notwithstanding the undeniable benefits that the implementation of this private Pension System has brought to the country, it should be pointed out that it has obliged the State to assume certain costs and future commitments, such as the payment of the "*Bonos de Reconocimiento"* (the bonds for those who switched from the old to the new system which "recognize" the contributions of these individuals to the old system); the payment of the pensions of those individuals who opted to remain within the old pension system; the responsibility for assuring minimum monthly pensions; and the loss of the monthly pension fund contributions made by active workers.

Role of the Insurance Companies in the Chilean Pension System

Upon retirement, an affiliate of the AFP system must opt for one of the following three pension payment mechanisms:

- "Scheduled Withdrawals": In this case, the AFP continues to manage the funds of the pensioner, who receives monthly payments made against his or her individual account. The pensioner is exposed to the "risk" of living longer than expected, in which case the monthly pension payment is reduced over time as funds are drawn down, and in an extreme case, could possibly reach a situation in which the Chilean State must respond in order to provide he or she with the "minimum pension" defined by law. On the other hand, if the individual passes away earlier than expected, the entire amount of the remaining funds pass as inheritance to immediate family members. It should be noted that during the period in which the affiliate receives his or her pension from the AFP, all residual funds continue to obtain the same profitability of the pension fund.

- "Annuities": The pensioner withdraws his funds from the AFP and transfers them to a freely chosen life insurance company, which is then obligated to pay a fixed monthly pension (expressed in UF, or real terms) for the remainder of the individual's life. This payment is calculated considering the life expectancy of the pensioner and a fixed rate of interest, named the "sales rate," that the insurance company establishes when the contract is signed. This rate is normally significantly lower than the average expected rate of return for the pension funds. In this case, the pensioner does not run the "risk" of living longer than expected. However, should the individual pass away earlier than expected, this system differs somewhat in the form in which it handles inheritance. When the widow or widower passes away, and any children cease receiving payment, because they reach a certain age or finish their studies, the insurance company is entitled to keep any remaining funds.

- "Scheduled Withdrawals with a Deferred Annuity Scheme": This is a hybrid mechanism in which the pensioner remains in the AFP system for a period of time of his or her choosing, and then later switches to the Annuity System with a life insurance company.

Since the obligations of the life insurance companies with their affiliates are, by definition, long-term by nature, one could normally expect that these institutional investors invest a large portion of their assets in long-term instruments. However, local laws have also established an obligation for the companies to maintain a certain degree of match between the terms of their assets and liabilities. This has been a strong motivating factor in the development of Chile's long term debt market.

By law only the life insurance companies are permitted to offer pension annuities, and this market has become their principal source of business, accounting for approximately 70% of their annual premiums.

Capital Markets and the Pension System: Conclusions

Given the size of the total funds managed by the AFPs (US $35.4 billion as of December 2001, a figure equivalent to 56% of Chilean GDP) and the life insurance companies (US $12.5 billion as of the same date), it is clear that these institutional investors have a very significant position in the local capital market.

As previously discussed, the regulatory framework for these investors has been very strict, and during the early years of the system their investments were almost exclusively oriented toward long-term government and bank instruments. Over time, an increased emphasis on self-regulation has allowed them to choose from a greater variety of investment instruments, including investment outside of Chile.

The private system has generated a number of benefits for the country, but a series of complex issues facing the system have yet to be adequately addressed.

Among the benefits, the three most important are probably the ones indicated below:

- For the majority of Chilean pensioners, their pensions are more generous than they would have been under the old pay-as-you-go system.

- The development of the system has clearly benefited the capital market, contributing to the maturity and stability of the Chilean economy as a whole.

- The sizeable reduction in the State's obligations with respect to pension payments. This has been a key factor in the fiscal budget balance of recent years.

As for the pending issues, the following can be cited:

- As the life expectancy of the population increases, and average rates of return on the pension funds stabilize at levels lower than the historic average, it is likely that the State will face rising costs as the number of pensioners who fall below the "minimum pension line," guaranteed by the government, increases. In addition, the high rates of unemployment observed during the last five years could also be an element that should be considered for the purposes of projecting the State's future potential liabilities associated with pensions.

- Since the private pension fund system is not mandatory for "independent workers" (those who do not have a contract), an important portion of the population faces a future without adequate retirement funds. At some point, this could create social problems, and the government will likely have to get involved in assisting these individuals.

- Women, who have longer life expectancies, tend to earn less than men, have an earlier retirement age in Chile (at 60 versus 65 for men), and subsequently have lower pensions. As a result, women are more likely to fall below the "minimum pension line," increasing the government's spending burden.

- Since the employer is responsible for transferring the employee's contribution to the pension fund system, companies in financial problems are faced with the temptation to retain these payments. While the law treats such companies as debtors and punishes this type of behavior, this situation represents a latent risk inherent to the system. In fact, a sharp increase in "overdue pension payments" has been recorded in recent years, as the Chilean economy has faced difficulties in the wake of the 1997-98 emerging markets crisis.

Sources of Information

The data utilized in this study was basically obtained from the following sources:

- Statistics from the Chilean Central Bank (monthly reports).

- Banks and Financial Institutions Superintendency (investment portfolio information, 1981-2001).

- Securities and Insurance Superintendency (investment portfolio information, 1984 – 2001).

- Pension Fund Administration Companies Superintendency (investment portfolio information, 1981 – 2001).

- "The Chilean Experience in completing markets with financial indexation" Eduardo Walker H. (1997)